REMARKS

Applicants thank the Examiner for the thorough consideration given the present invention. Claims 1-26 are pending in the present application. Claims 1, 12, 13, 14, 25, and 26 are independent claims.

35 U.S.C. § 102 Rejection – Komatsu

Claims 1-4 and 11-13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Application 2000-022978 to Komatsu et al. (hereafter "Komatsu"). Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

Komatsu teaches a method and apparatus for performing color correction involving the compression of high-saturation and highly varied color ranges to facilitate transferring and displaying of images across output devices with different color gamuts. (Abstract). Komatsu specifically teaches compressing a brightness-converted, but still irreproducible, color into the available gamut of reproducible colors. (Para 0006).

Claim 1

Independent claim 1 pertains, in part, to a color correction apparatus having a color gamut compressor, such that the gamut compressor "determines a hue of the image data converted by said color corrector, acquires both: an input chromaticity range from the input image signal based on the data describing the color reproduction characteristics, said input chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal, and an output chromaticity range based on the data describing the color reproduction characteristics, said output range indicating said color reproduction characteristics corresponding to the hue of the image data converted by said color corrector."

Teachings of Komatsu

With respect to amended independent claim 1, the Office Action asserts that Komatsu teaches a color gamut compressor that "acquires both: an input chromaticity range from the input image signal based on the data describing the color reproduction characteristics, said input chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal, and an output chromaticity range based on the data describing the color reproduction characteristics, said output range indicating said color reproduction characteristics corresponding to the hue of the image data converted by said color corrector." In explaining this assertion the Office action states that the process of determining hue information from image data that already underwent lightness conversion and lightness compression (Para 0006) is regarded as conceptually the same as acquiring both "an input chromaticity range from the input image signal based on the data describing the color reproduction characteristics, said input chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal, and an output chromaticity range based on the data describing the color reproduction characteristics, said output range indicating said color reproduction characteristics corresponding to the hue of the image data converted by said color corrector" as required by independent claim 1. Assuming, *in arguendo*, that this assertion is correct, it is still not sufficient to teach or suggest acquiring a chromaticity range twice, from two different sources, by citing a reference that only teaches doing it once from only one source.

Applicants respectfully submit that even if Komatsu does teach the claim limitation of "acquiring a chromaticity range indicating said color reproduction characteristics corresponding to a hue of image data," (Page 2 of Office Action) Komatsu only teaches doing this once and to only one type of image data. Independent claim 1 requires that this hue-dependent chromaticity range acquisition be performed twice, each time on a different set of data.

No Inherent Chromaticity Range Acquisition

In maintaining his rejection, the Examiner states that "the method of acquiring a chromaticity range indicating color reproduction is the same, whether it is applied ones [*sic*] or twice, and whether it's applied to the same set of data or different set of data." (Page 2 of Office Action). Applicants respectfully disagree with this characterization of Komatsu.

Komatsu specifically teaches that only the lightness-converted image signal "is sent to the convert-colors (compression) part 209." (Para 0006). Komatsu therefore explicitly teaches that the gamut compressor does NOT acquire "a chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal" as required by independent claim 1. Furthermore, Komatsu makes no suggestion that the gamut compressor acquires or otherwise uses the input image signal in addition to the brightness-converted signal.

Structural Limitation

The gamut compressor of independent claim 1 is a structural claim element, and its behavior in acquiring "an input chromaticity range from the input image signal based on the data describing the color reproduction characteristics, said input chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal, and an output chromaticity range based on the data describing the color reproduction characteristics, said output range indicating said color reproduction characteristics corresponding to the hue of the image data converted by said color corrector" is governed by specific configurations and structures in either hardware or software, either of which comprise structural components of the claimed apparatus. Applicants therefore further submit that there is no teaching or suggestion in Komatsu indicating it would be desirable or appropriate to duplicate the chromaticity acquisition portion of a color gamut compressor.

Legal Requirements of 102 Rejection

Under a 35 U.S.C. §102 rejection, "the claim is anticipated by the reference. No question of obviousness is present. In other words, for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." (MPEP §706.02.V).

Even assuming the Examiner's assertion regarding the method of acquiring a chromaticity range is correct, Komatsu makes no explicit or implicit teaching of a gamut compressor that "acquires both: an input chromaticity range from the input image signal based on the data describing the color reproduction characteristics, said input chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal, and an output chromaticity range based on the data describing the color reproduction characteristics, said output range indicating said color reproduction characteristics corresponding to the hue of the image data converted by said color corrector" as required by independent claim 1.

Applicants therefore respectfully submit that Komatsu fails to "teach every aspect of the claimed invention" as required by MPEP §706.02.V.

Claim 13

Applicants respectfully submit that amended independent claim 13 recites the limitation of a gamut compression step that "acquires both: an input chromaticity range from the image data based on the data describing the color reproduction characteristics, said input chromaticity range indicating said color reproduction characteristics corresponding to a hue of the input image signal, and an output chromaticity range based on the data describing the color reproduction characteristics, said output range indicating said color reproduction characteristics corresponding to the hue of the image data converted by said color corrector." Applicants respectfully submit

that independent claim 13 is patentable over Komatsu for the same reasons as stated with respect to independent claim 1.

Claim 12

Independent claim 12 pertains to "a color correction apparatus comprising: a saturation conversion means for converting a saturation of an input image signal based on both color adjustment data describing both a hue to be saturation-converted and an amount of adjustment, and color reproduction characteristics data describing color reproduction characteristics of a color image display apparatus."

Teachings of Komatsu

With respect to independent claim 12, the Office Action asserts that Komatsu teaches converting the saturation of an input image based on "color adjustment data describing both a hue to be saturation-converted and an amount of adjustment." Komatsu teaches that saturation conversion is done using "the lightness corresponding to the highest saturation for every hue of an image output device." (Para 0006). Hue and lightness are not the same, and although the lightness is determined from the hue, it is determined from the hue at full saturation, meaning that it does not contain data about the amount of saturation adjustment required.

No Implied Saturation Adjustment

In maintaining his rejection, the Examiner states that "although lightness is determined for the hue at full saturation, it doesn't mean that it does not contain the amount of saturation adjustment." (Page 3 of Office Action). Applicants respectfully disagree with this characterization of Komatsu.

Komatsu only teaches saturation conversion at levels "corresponding to the highest saturation for every hue of an image output device." (Para 0006). Furthermore, Komatsu's color reproduction range storage parts store "the color reproduction range data (the brightness L, the

maximum chroma saturation C to the hue H) of the printer." (Para 0006). Komatsu therefore makes no teaching or suggestion of capturing, storing, or otherwise examining any saturation value other than the maximum chroma (full) saturation for a hue.

Legal Requirements of 102 Rejection

Under a 35 U.S.C. §102 rejection, "the claim is anticipated by the reference. No question of obviousness is present. In other words, for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." (MPEP §706.02.V).

Applicants submit that Komatsu makes no explicit or implicit teaching of saturation conversion based on "color adjustment data describing both a hue to be saturation-converted and an amount of adjustment" as required by independent claim 12.

Applicants therefore respectfully submit that Komatsu fails to "teach every aspect of the claimed invention" as required by MPEP §706.02.V.

Claims 2-4, 11

Applicants respectfully submit that claims 2-4 and 11 are allowable at least by virtue of their dependency from independent claim 1. Applicants submit that the arguments made with respect to independent claim 1 apply equally to all claims depending therefrom.

Reconsideration

At least for the above reasons, Applicants respectfully submit that Komatsu does not teach all the claim limitations of independent claims 1, 12, and 13 and all claims depending therefrom. Applicants therefore respectfully request reconsideration and withdrawal of this rejection.

35 U.S.C. § 103 Rejections

Claims 5-7 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Komatsu in view of Iida (U.S. 2003/0164968)[hereinafter "Iida"].

Claim 8 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Komatsu in view of Iida, Shimada (U.S. 2002/0039106)[hereinafter "Shimada"], and Schwartz et al. (U.S. Patent 5,999,703)[hereinafter "Schwartz"].

Claims 9-10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Komatsu in view of Ogatsu et al. (U.S. Patent 2002/0029715)[hereinafter "Ogatsu"].

Applicants respectfully submit that claims 5-10 are allowable at least by virtue of their dependency from independent claim 1. Applicants further submit that none of Iida, Schwartz, or Ogatsu are relied upon in the Office Action to remedy the above-identified defects in the teachings of Komatsu, nor can they properly be relied upon for this purpose. Accordingly, reconsideration and withdrawal of these rejections is respectfully requested.

New Claims

Applicants respectfully submit that new claims 14 – 26 are allowable for at least the same reasons as set forth with respect to claims 1 – 13.

CONCLUSION

In view of the above remarks, it is believed that the claims are allowable.

Should there be any outstanding matters that need to be resolved in the present application; the Examiner is respectfully requested to contact Michael K Mutter, Reg. No. 29,680 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

Dated: September 11, 2008

Respectfully submitted,

By _____
Michael K. Mutter
Registration No.: 29,680
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicants